

# KI TK054

## POF Test Kit

### Optical Communications Test Applications

- POF and PCS power and loss testing
- POF and PCS cabling contractors



Revision 12

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The POF Pocket 9000 FiberTester Kit KI-TK054 is a high performance, cost-effective testing kit designed for plastic optical fiber (POF) up to 1 mm core diameter, large core 200/230 and 400/430 Plastic Clad Silica (PCS) fiber at 650/660 nm.

### Features

- Large 5 mm Si detector ideal for POF and PCS testing
- 3 years warranty
- Calibrations at 8 wavelengths
- ISO 17025 traceable calibration certificate
- Industry standard screw-on connector adaptors for meter
- Interchangeable adaptor for light source
- Optical Test Tone Detection
- Long battery life
- Compact, rugged & light weight
- Max / min recording
- Sunlight readable display
- Made in Australia

## KI TK054 – POF Test Kit

The POF Pocket 9000 FiberTester Kit, KI-TK054 combines KI9809AM 660 nm LED light source, with and KI9600XL-Si5 power meter with 5.0 mm large area Si detector. Calibrations are ISO 17025 traceable.

The interchangeable adaptor of the light source allows end user to connect the test kit to optical link with variety of POF connector types.

The light source test tone function can be used with a compatible optical power meter for fiber detection, continuity testing and fault finding.

The long battery life eliminates the requirement for rechargeable batteries and time-consuming re-charging procedures.

### KI9600XL-SI5 POWER METER SPECIFICATIONS

| Detector type | Response $\lambda$ nm | Damage level dBm | Calibration $\lambda$ nm                           | Power range dBm      | Midrange linearity <sup>1</sup> dB | Calibration Accuracy % | $\lambda$ Sensitivity $\pm 30$ nm <sup>2</sup> dB | Polarization Sensitivity dB | Total Uncertainty <sup>2,3</sup> dB |
|---------------|-----------------------|------------------|--|----------------------|------------------------------------|------------------------|---|-----------------------------|-------------------------------------|
| 5.0 mm Si     | 350 ~ 1100            | +10              | 470, 520, <b>635, 650, 660, 780, 820, 850, 980</b> | +5 ~ -50<br>+5 ~ -60 | 0.04                               | 2 %<br>(0.09 dB)       | 0.03  | < 0.005                     | 0.3                                 |
|               |                       |                  |  |                      | typical                            |                        | typical   | typical                     | max                                 |

**Note 1:** Midrange linearity @ 850 nm. Non-coherent light. Excludes top 5 dB and bottom 10 dB of range.

**Note 2:** At calibration wavelengths in bold type.

**Note 3:** Includes contributions of: varying optical connector types, calibration uncertainty, linearity over temperature & range, and fiber core diameter up to 1 mm (for 5 mm detector, max NA= 0.5) or fiber core diameter up to 3 mm (for 5 mm detector, max NA= 0.3).

### KI9809AM LIGHT SOURCE SPECIFICATIONS

| Parameter                       | Value                |  | Comments   |
|---------------------------------|----------------------|--|--|
|                                 | 660 nm LED           |  |  |
| Output Power (Fiber Type)       | -6 dBm (1 mm POF)    |  | $\pm 1$ dB   |
| Short term stability, dB        | 0.01                 |  | For 15 min, typical $\pm \Delta 2^\circ\text{C}$ , after warm-up |
| Stability over temp, dB         | 0.35                 |  | Typical, over temperature  |
| $\lambda$ initial tolerance, nm | 15                   |  | @ 25 °C  |
| $\lambda$ width, nm             | 25                   |  | FWHM, typical  |
| Modulation                      | 270 Hz, 1 KHz, 2 KHz |  | $\pm 2$ %  |

### GENERAL SPECIFICATIONS

| Parameter                        | Value  |
|----------------------------------|--|
| <b>KI 9600XL-Si5 Power Meter</b> |  |
| Battery life                     | 300 hours  |
| Tone detection                   | 200 - 2500 Hz $\pm 2$ %  |
| Max / min                        | Recording feature for stability testing                          |
| Connector Interface              | Mounting screw thread 7/8" 28 TPI – UN - 2B                      |
| <b>KI 9809AM Light Source</b>    |  |
| Battery life                     | 35 hours in Autotest, typical                                    |
| Connector interface              | SC/Hybrid interchangeable adaptor                                |
| <b>Common</b>                    |  |
| Size                             | 124 x 81 x 25 mm, 4.9 x 3.2 x 1.0"                               |
| Weight per unit                  | 0.15 kg, 0.33 lb. Shipping 0.5 kg, 1.1 lb.                       |
| Operating / Storage              | -15 to 55 °C / -25 to 70 °C                                      |
| Case                             | Polycarbonate, 1-meter drop tested                               |
| Power                            | 2 alkaline AAA cells. Selectable auto-off, low battery indicator |

Australian and international patents. Technical data is subject to change without notice as part of our program of continuous improvements. Class 1 Laser/ LED product, complies IEC60825-1 and 21CFR1040.10.

## ORDERING INFORMATION

| Description                 | Part number |
|-----------------------------|-------------|
| Kit, Small Pocket, POF 9000 | KI-TK054    |

- i. Please enquire for warranty extension options, re-calibration services.
- ii. Standard 3 years of warranty for instrument only.

## STANDARD EQUIPMENT / ACCESSORIES

| Description  | Quantity                  |
|--|---------------------------|
| Instrument, Source 660 nm LED (KI9809AM)           | 1                         |
| Instrument, Power Meter Si 5mm (KI9600XI-Si5)      | 1                         |
| Option, Connector Adaptor, SC/HFBR (OPT078)        | 1                         |
| Option, Connector Adaptor XL 7/8-28, HFBR (OPT231) | 1                         |
| Soft carry pouch (OPT156)                          | 2                         |
| Wrist strap  | 2                         |
| Quick reference guide                              | 2                         |
| QA certificate                                     | 2 (1 for each instrument) |
| ILAC/ NATA traceable calibration certificate       | 1 (for KI9600XL-Si5 only) |

Please remember to order one or more styles of screw-on connector adaptors for the power meter.

## OPTIONAL INTERCHANGEABLE ADAPTORS FOR LIGHT SOURCE

| Description   | Part number |
|---|-------------|
| Option, Hybrid Adaptor, Ceramic Sleeve, SC/FC   | OPT051      |
| Option, Hybrid Adaptor, SC/HFBR   | OPT078      |
| Option, Hybrid Adaptor, Ceramic Sleeve, SC/ST   | OPT040      |
| Option, Hybrid Adaptor, Ceramic Sleeve, SC/D4   | OPT055      |
| Option, Hybrid Adaptor, Ceramic Sleeve, SC/MU   | OPT080      |
| Option, Hybrid Adaptor, Ceramic Sleeve, SC/LSA-DIN47256   | OPT071      |
| Option, Hybrid Adaptor, Ceramic Sleeve, SC/E2000  | OPT060      |
| Option, Hybrid Adaptor, Ceramic Sleeve, SC/E2000 Green  | OPT060G     |
| Option, Hybrid Adaptor, Ceramic Sleeve, SC/SC   | OPT046      |
| Option, Hybrid Adaptor, Ceramic Sleeve, SC/Universal 2.5 mm   | OPT081      |
| Option, Hybrid Adaptor, Metal Sleeve, SC/SMA 905/906  | OPT082      |
| Option, Hybrid Adaptor, SC/POF multi<br>POF Multi-Adapter for POF light source. For: HFBR all types, bare POF, Mini Toslink, 2.5mm. Turn turret to the required hole size: 3.85, 3.5, 3.2, 2.55, 2.4, 2.3 mm x 8.5 mm deep. | OPT077      |



## OPTIONAL INTERCHANGEABLE ADAPTORS FOR POWER METER

| Description  | Part number |
|--|-------------|
| POF optimized adaptors:  |             |
| Option, Connector Adaptor XL 7/8-28, POF multi<br>For: Mini Toslink, unterminated POF cable, HFBR series (simplex and duplex), 2.5mm. The user turns the turret to the required hole size. Actual hole size 3.85, 3.5, 3.2, 2.55, 2.4, 2.3 mm x 8.5 mm deep. | OPT229      |
| Option, Connector Adaptor XL 7/8-28, Toslink   | OPT230      |
| Option, Connector Adaptor XL 7/8-28, SMA 905/906   | OPT203      |
| Option, Connector Adaptor XL 7/8-28, HFBR  | OPT231      |
| Option, Connector Adaptor XL 7/8-28, POF SC  | OPT201-POF  |
| Option, Connector Adaptor XL 7/8-28, POF ST  | OPT202-POF  |
| Option, Connector Adaptor XL 7/8-28, POF FC  | OPT204-POF  |
| Option, Connector Adaptor XL 7/8-28, POF 2.5 mm universal  | POF225-POF  |

The adaptors are industry standard 7/8" 28 TPI screw-on connector adaptor. They are suitable for both PC and APC polish connectors. Other styles available on request.



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